

REMARKS/ARGUMENTS

Restriction/Election

Provisional election of Group I, claims 1-21 is confirmed. Claims 22-30 were withdrawn.

Double Patenting

The Office considers claims 16, and 18-20 as being obvious over commonly owned U.S. Pat. No. 6,508,459, and rejected those claims under the judicially created doctrine of double patenting. The Examiner further elaborates that "...although the conflicting claims are not identical, they are not patentably distinct from each other *because the patent disclose of a bubble cap with a riser, cap, and a plurality of riser vanes, with vane passageways, which are part of a distribution tray...*(emphasis added)". The applicant disagrees for various reasons.

First, similarity of the disclosure is not the standard to properly establish obviousness. As is well established, each and every element must be taught or suggested, AND a motivation to modify the reference's teaching must be present in the reference or knowledge of a person of ordinary skill in the art (See, e.g., *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'") (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998))).

Second, mere desirability to improve on a teaching because of improved results is not sufficient. Courts repeatedly stated (see e.g., *Zurko*, 258 F.3d at 1385, 59 USPQ2d) that "deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense.'" The Board's findings must extend to all material facts and must be documented on the record, lest the "haze of so-called expertise" acquire insulation from accountability. "Common knowledge and common sense," even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority.

Therefore, if the Examiner insist on claims 16, and 18-20 as being obvious over the '459 patent, the applicant would appreciate guidance as to where each and every element is taught and/or suggested by the '459 patent and/or knowledge of a skilled artisan. In the absence of such indication, it is the applicant's position that claims 16, and 18-20 are not obvious over the '459 patent.

35 U.S.C. 102(b)

Claims 16-21 were rejected under 102(b) as being anticipated by Porter et al. (U.S. Pat. No. 3,859,063). With respect to *claims 16-19, the applicant agrees*. With respect to *claims 20-21 the applicant disagrees*. Nevertheless, the applicant amended claim 16 accordingly. Claims 17-21 are dependent on the elements recited in amended claim 16. Therefore, each of claims 17-21 should now overcome the Examiner's anticipation rejection.

As amended herein, claim 16 expressly requires that "...the riser, the cap, and at least one of the riser vanes are configured such that a first and a second fluid mix in the bubble cap during concurrent flow through the bubble cap..." These elements are not taught by Porter. Therefore, amended claims 16-21 are not anticipated by Porter et al.

The amended claims are also not obvious over Porter as *Porter's device is configured to separate a liquid from a gas, which is contrary to the claimed subject matter*. Clearly, Porter et al teach against amended claims 16-21.

35 U.S.C. 103(a)

Claims 1, 2, 4-9, 11, and 15 were rejected under §103 as being obvious over Rosetti et al. (U.S.Pat. No. 5,152,967) in view of Porter et al. The applicant disagrees. Among other things, the applicant's swirl chamber distributes a mixture of a first and second fluid. Nevertheless, and only to advance at least some of the claimed subject matter to issuance, the applicant amended claim 1 to *include all elements of claim 10, which was previously deemed allowable*. Thus, as claims 2, 4-9, 11, and 15 are dependent on amended claim 1, claims 1, 2, 4-9, 11, and 15 should now be in condition for allowance.

Claims 3, 11-12, and 14 were rejected under §103 as being obvious over Rosetti et al. in view of Porter et al. and further view of Perry et al (U.S. Pat. No. 5,567,396). Once more the

applicant disagrees for various reasons. However, as claims 3, 11-12, and 14 are dependent on amended and allowable claim 1, claims 3, 11-12, and 14 are also allowable.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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